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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER	
ODLAND, DAVID E	

ART UNIT	PAPER NUMBER
2662	13

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/405,787	KAO ET AL.	
	Examiner	Art Unit	
	David Odland	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 02/09/2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4,6-8,12-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar et al. (USPN 6,172,973), hereafter referred to as Akhtar in view of Mitra et al. (USPN 6,331,986), hereafter referred to as Mitra.

Referring to claims 1 and 12, Akhtar discloses a carrier class switch apparatus (a switching apparatus (see figure 3 and claim 1)) comprising:

means capable of receiving voice calls having TDM voice/ fax and VoATM media types (means for receiving voice calls over TDM connections and ATM connections (see figure 3 and claim 1)), said means for receiving a voice call having a first media type (the TDM voice switch receives the voice call (see figure 3 and claim 1)) , and a first signaling type corresponding to said first media type (means for receiving voice calls in a TDM format which and its associated signaling (see figure 3, claim 1 and abstract));

means capable of converting voice calls to TDM voice/fax and VoATM media types (the TDM signals are converted into ATM cells (see figure 3, claim 1 and abstract)), said means for

converting said voice call to a second media type different from the first media type (the TDM signals are converted into ATM cells (see figure 3, claim 1 and abstract));

means for relaying signaling associated with said voice call of said first signaling type to a second signaling type corresponding to said second media type (signaling information of the TDM connections relayed through the ATM connections (see figure 3, claim 1 and abstract));

means for forwarding said voice call having said second media type (an ATM switch is used to transport the voice call (see figure 3, claim 1 and abstract)).

Akhtar does not disclose the first and second means are capable of receiving and converting to and from VoIP and VoFR. However, as pointed out in the specification of the present invention on page 3 lines 4-13, these are established standards. Therefore, it would have been obvious to one skilled in the art at the time of the invention to implement VoIP and VoFR in the Akhtar system because doing so would allow the system to accommodate more users (i.e. the users of the already standardized VoIP and VoFR protocols), thereby making the Akhtar system more flexible and versatile. Furthermore, implementing this feature in Akhtar will allow the Akhtar system to confirm to the already established protocols.

Akhtar also does not disclose means for determining the second media type according to a service plan profile of a calling party associated with the voice call. However, Mitra discloses a system wherein a network operator uses service-level agreements it has with their customers (i.e. calling parties), in order to provide different service types (i.e. media types) (see column 4 lines 47-53)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into the Akhtar system because doing so would make the system more flexible and versatile since it would provide users of the systems with different service types.

Furthermore, having service-level agreements with customers would make the network operator more accommodating to customers needs since such agreements guarantee the quality-of-service required for the different service types, which would also keep customers satisfied.

Referring to claims 2 and 13, Akhtar discloses the switching system as discussed above. Furthermore, Akhtar discloses that the means for receiving a voice call includes means for receiving said voice call at a first interface of the switch apparatus (the voice call is received at the TDM switch (see figure 3, claim 1 and abstract)), said first interface being one of a broadband interface and a narrowband interface (the TDM switch is a narrowband apparatus since it receives voice data (see figure 3, claim 1 and abstract)), and wherein means for forwarding said voice call includes means for forwarding said voice call at a second interface of said switch apparatus (the ATM switch forwards the voice call ((see figure 3, claim 1 and abstract)), said second interface being one of said broadband interface and said narrowband interface (the ATM switch is a broadband interface. Note, it is well known in the art that ATM technology transports data at rates of T3 and above and so it is therefore considered a broadband interface (see figure 3, claim 1 and abstract)).

Referring to claims 3 and 14, Akhtar discloses the switching system as discussed above. Furthermore, Akhtar discloses that the switching system comprises means for associating said voice call with a quality of service requirement (voice calls have a real-time requirements and the Akhtar system is designed to means this requirement (see column 2 lines 1-18 and column 3 lines 40-57)).

Referring to claims 4 and 15, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system determines quality of service requirements in

accordance with the service profile of a calling party associated with the voice call. However, Mitra discloses a system wherein a network operator uses service-level agreements it has with their customers (i.e. calling parties), in order to determine and provide quality of service requirements (see column 4 lines 47-53)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into the Akhtar system because doing so would make the system more robust since it would guarantee the users of the systems the quality-of-service requirements associated with the different service types. Furthermore, having these service-level agreements with customers would make the network operator more accommodating to customers needs associated with the quality-of-service requirements, which would also keep customers satisfied.

Referring to claims 6 and 17, Akhtar discloses the switching system as discussed above. Furthermore, Akhtar discloses that the system comprises means for switching packets associated with said voice call between said first interface and said second interface (the packets are switched from the TDM switch to the ATM switch (see figure 3)).

Referring to claims 7 and 18, Akhtar discloses the switching system as discussed above. Furthermore, Akhtar discloses that the system comprises means for converting the voice call into packets having an intermediate switching media type (the voice call is converted into ATM cells which transport through an intermediate ATM network and are converted back to TDM at the destination (see figure 3, claim 1 and abstract)).

Referring to claims 8 and 19, Akhtar discloses the switching system as discussed above. Furthermore, Akhtar discloses that the intermediate switching media type is ATM cells (the

voice call is converted into ATM cells for transmission through the ATM network (see figure 3, claim 1 and abstract)).

4. Claims 5, 9-11,16, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar in view Mitra and further in view of Lee (USPN 6,252,847), hereafter referred to as Lee.

Referring to claims 5 and 16, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system determines quality of service requirements in accordance with instantaneous availability of bandwidth. However, Lee discloses an ATM cell transmission system comprising means for determining said quality of service requirements in accordance with instantaneous availability of bandwidth resources (a quality of service level is specified according to the instantaneous bandwidth required for available bit rate (ABR) traffic (see column 1 lines 25-28, column 1 lines 55-58 and column 2 lines 44-50)). It would have been obvious to one skilled in the at the time of the invention to determine the quality of service according to available bandwidth, as taught by Lee, in the system of Akhtar, because doing so would allow the system to assure that there is enough bandwidth available to properly transport the voice call, thereby making the system more reliable.

Referring to claims 9,11, 20 and 22, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system has an associated quality of service or that the data is switched based on a rate corresponding to that quality of service. However, Lee discloses an ATM cell transmission system comprising means for associating said voice call with a quality of service requirement (real-time data, such as voice calls, has an associated quality-of-

service requirement (see column 1 lines 13-30)) and said means for switching packets associated with said voice call being adapted to switch said packets at a rate corresponding to said quality of service requirement (the quality of service level is specified to according to the instantaneous bandwidth required for available bit rate (ABR) traffic (see column 1 lines 25-28, column 1 lines 55-58 and column 2 lines 44-50)). It would have been obvious to one skilled in the at the time of the invention to determine the quality of service according to as associated rate, as taught by Lee, and switch the voice call according that quality of service in the system of Akhtar, because doing so would allow the system to assure that there is enough bandwidth available to properly transport the voice call, thereby making the system more reliable.

Referring to claims 10 and 21, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system determines quality of service requirements in accordance with the service profile of a calling party associated with the voice call. However, Mitra discloses a system wherein a network operator uses service-level agreements it has with their customers (i.e. calling parties), in order to determine and provide quality of service requirements (see column 4 lines 47-53)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into the Akhtar system because doing so would make the system more robust since it would guarantee the users of the systems the quality-of-service requirements associated with the different service types. Furthermore, having these service-level agreements with customers would make the network operator more accommodating to customers needs associated with the quality-of-service requirements, which would also keep customers satisfied.

5. Claims 23 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew et al. (USPN 5,712,903), hereafter referred to as Bartholomew in view of Mitra.

Referring to claim 23, Bartholomew discloses a carrier class switch apparatus integrated in a single switching platform (a spilt switch intelligent peripheral (IP) (see figure 8)) comprising:

a switching fabric adapted to switch packets between a plurality of broadband switching ports (the switch switches data between a plurality of switching ports (see item 800 of figure 8));

a broadband interface coupled to one of said plurality of broadband switching ports, said broadband interface being adapted to communicate voice calls between said switching fabric and a broadband connection (an interface module (see item 810 of figure 8) is coupled to the broadband switch fabric and transports voice calls from the switching fabric to the broadband ATM connections (see items 800 and 810 of figure 8)), said broadband interface with said broadband connection capable of communicating TDM voice/fax and VoATM media types (the broadband ATM connections transport voice calls (see figure 8));

a local switch module coupled to another one of said plurality of broadband switching ports (a telephone narrowband switch fabric is coupled to the broadband switch fabric (see figure 8));

a narrowband interface coupled to said local switch module, at least one of said narrowband interface being adapted to communicate voice calls between said switching fabric and a narrowband connection (the narrowband telephone interfaces are adapted to transport voice calls to and from the telephones and the broadband ATM switch fabric (see figure 8)), said narrowband interface capable of communicating TDM voice/fax and VoATM (the narrowband

telephone call is a voice call carried over trunks and T1 lines which use a TDM protocol and voice messages can flow over the ATM broadband connection (see item 51 of figure 2, column 2 lines 57-67 and figure 8 and column 15 lines 1-16)); and

a switch control card coupled to said broadband interface and said narrowband interface (a CPU is coupled to the broadband and narrowband interfaces (see item 706 of figure 7)), said switch control card being adapted to relay signaling associated with a voice call between said broadband connection and said narrow band connection, said voice call having a first signaling type corresponding to a first media type at said broadband connection and a second signaling type corresponding to a second media type different than said first media type at said narrowband connection (the CPU is coupled to an Server Control Point (SCP) which is part of an SS7 network used to setup voice calls and can relay signaling information related to the voice call with signaling associated with the ATM connections (see figure 7 and figure 1)); and

a call server coupled to the said switch control card (an L2 server is coupled to the CPU controller (see item 901 of figure9)).

Bartholomew does not disclose that the narrowband interface is capable of communicating VoIP and VoFR. However, as pointed out in the specification of the present invention on page 3 lines 4-13, these are established standards. Therefore, it would have been obvious to one skilled in the art at the time of the invention to implement VoIP and VoFR in the Akhtar system because doing so would allow the system to accommodate more users (i.e. the users of the already standardized VoIP and VoFR protocols), thereby making the Akhtar system more flexible and versatile. Bartholomew also does not disclose means for determining the second media type according to a service plan profile of a calling party associated with the voice call. However, Mitra discloses a

system wherein a network operator uses service-level agreements it has with their customers (i.e. calling parties), in order to provide different service types (i.e. media types) (see column 4 lines 47-53)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into the Bartholomew system because doing so would make the system more flexible and versatile since it would provide users of the systems with different service types. Furthermore, having service-level agreements with customers would make the network operator more accommodating to customers needs since such agreements guarantee the quality-of-service required for the different service types, which would also keep customers satisfied.

Referring to claim 25, Bartholomew discloses the switching system as discussed above. Furthermore, Bartholomew discloses that the system includes a voice/ fax controller that converts packets associated with said voice call between said second media type and said first media type (a protocol conversion unit that converts the narrowband data into the broadband data see (figure 7 and figure 8)).

Referring to claim 26, Bartholomew discloses the switching system as discussed above. Furthermore, Bartholomew discloses that the system includes converting between the narrowband voice data, which is carried in a T1 and therefore digitized (see figure 2 item 57), and the broadband ATM connections from the ATM broadband switching fabric (see figure 8). Note, the voice calls are inherently re-packetized when they are converted between narrowband and broadband. Note, Bartholomew processes ATM cells which are digital signals, therefore Bartholomew discloses a DSP.

Referring to claims 27, 28 and 29, Bartholomew discloses the switching system as discussed above. Furthermore, Bartholomew discloses a multi-service engine that converts said

packets between said second media type and an intermediate switching media type of said switching fabric, wherein the said intermediate switching media type is ATM cells (a protocol converter used to convert narrowband telephone calls into ATM cells (see figure 7 and 8)).

6. Claims 24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew in view Mitra and further in view of Chu et al. (USPN 5,956,334), hereafter referred to as Chu.

Referring to claim 24, Bartholomew discloses the switching system discussed above. Bartholomew does not disclose that the switch control card is adapted to route and manage virtual connections between the broadband ports. However, Chu discloses of an ATM system wherein the system is adapted to route and manage virtual circuit connections between a plurality of ports associated with a voice call in accordance with a quality of service requirement for the voice call (virtual connections are established to transport voice calls through the ATM network and the characteristics of the connections are dictated by quality of service requirements (see column 2 lines 21-50)). It would have been obvious to one skilled in the art at the time of the invention to adapt the CPU, associated with the broadband switch fabric disclosed in Bartholomew, to route and mange the virtual connections based on quality of service requirements, as taught in Chu, because since voice data is time sensitive data, the quality of service requirements would allow the voice data to be transported through the system while maintaining the proper bit rate, thereby assuring the voice call is suitably heard by the receiving end-user. Thus making the system more reliable.

Referring to claim 30, Bartholomew discloses the switching system as discussed above. Furthermore, Bartholomew discloses that the system further includes:

a voice/fax controller that converts packets associated with said voice call between said second media type and said first media type (a protocol converter for converting between the telephone narrowband call and ATM cells (see figures 7 and 8)); and

a multi-service engine that converts said packets between said second media type and an intermediate switching media type of said switching fabric (the protocol converter converts between the ATM cells and the narrowband telephone calls (see figure 7 and 8)).
Although, in the system disclosed in Bartholomew the controller and multi-service engine are coupled to the narrowband interface means (the protocol converter is coupled to the narrowband interface means).

7. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew in view of Mitra and Chu and further in view of Rathnavelu (USPN 5,914,934), hereafter referred to as Rathnavelu.

Referring to claim 31, Bartholomew discloses the switching system discussed above. Bartholomew does not disclose that the narrowband interface further comprises virtual circuit queues and an SAR engine for servicing the queues based on QOS requirements. However, Rathnavelu discloses an ATM system comprising a virtual circuit queue for buffering said packets (a virtual circuit queue for buffering ATM cells (see column 3 lines 45-63)); and

an SAR engine for servicing said virtual circuit queue in accordance with said quality of service requirement (an SAR implemented to perform cell scheduling based on virtual circuit

identifiers (VCID's) which have quality of service requirements (see column 3 lines 45-67 and column 2 lines 1-10)).

It would have been obvious to one skilled in the art at the time of the invention to use the virtual circuit queue in conjunction with an SAR, as taught by Rathnavelu in the system disclosed in Bartholomew, because since voice data is time sensitive data, the quality of service requirements and the buffer servicing by the SAR would allow the voice data to be transported through the system while maintaining the proper bit rate, thereby assuring the voice call is suitably heard by the receiving end user. Thus making the system more reliable.

8. Claims 32-35 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar in view of Mitra.

Claims 32-35 and 37-39 are rejected for the same reasons as claim 12-15 and 17-19, respectively, as discussed above, except Akhtar does not disclose that the method is performed using a computer-readable medium. However, it would have been obvious to one skilled in the art at the time of the invention to implement the method taught in Akhtar in software rather than hardware because software it is much easier to implement processes and upgrade than hardware.

9. Claims 36, and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar in view Mitra and further in view of Lee.

Referring to claim 36, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system determines quality of service requirements in accordance with instantaneous availability of bandwidth. However, Lee discloses an ATM cell

transmission system comprising means for determining said quality of service requirements in accordance with instantaneous availability of bandwidth resources (a quality of service level is specified to according to the instantaneous bandwidth required for available bit rate (ABR) traffic (see column 1 lines 25-28, column 1 lines 55-58 and column 2 lines 44-50)). It would have been obvious to one skilled in the at the time of the invention to determine the quality of service according to available bandwidth, as taught by Lee, in the system of Akhtar, because doing so would allow the system to assure that there is enough bandwidth available to properly transport the voice call, thereby making the system more reliable. Furthermore, Akhtar does not disclose that the method is performed using a computer-readable medium. However, it would have been obvious to one skilled in the art at the time of the invention to implement the method taught in Akhtar in software rather than hardware because software it is much easier to implement processes and upgrade than hardware.

Referring to claims 40 and 42, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system has an associated quality of service or that the data is switched based on a rate corresponding to that quality of service. However, Lee discloses an ATM cell transmission system comprising means for associating said voice call with a quality of service requirement (real-time data, such as voice calls, has an associated quality-of-service requirement (see column 1 lines 13-30)) and said means for switching packets associated with said voice call being adapted to switch said packets at a rate corresponding to said quality of service requirement (the quality of service level is specified to according to the instantaneous bandwidth required for available bit rate (ABR) traffic (see column 1 lines 25-28, column 1 lines 55-58 and column 2 lines 44-50)). It would have been obvious to one skilled in the at the time of

the invention to determine the quality of service according to as associated rate, as taught by Lee, and switch the voice call according that quality of service in the system of Akhtar, because doing so would allow the system to assure that there is enough bandwidth available to properly transport the voice call, thereby making the system more reliable. Furthermore, Akhtar does not disclose that the method is performed using a computer-readable medium. However, it would have been obvious to one skilled in the art at the time of the invention to implement the method taught in Akhtar in software rather than hardware because software it is much easier to implement processes and upgrade than hardware.

Referring to claim 41, Akhtar discloses the switching system as discussed above. Akhtar does not disclose that the switching system determines quality of service requirements in accordance with the service profile of the calling party associated with the voice call. However, Mitra discloses a system wherein a network operator uses service-level agreements it has with their customers (i.e. calling parties), in order to determine and provide quality of service requirements (see column 4 lines 47-53)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into the Akhtar system because doing so would make the system more robust since it would guarantee the users of the systems the quality-of-service requirements associated with the different service types. Furthermore, having these service-level agreements with customers would make the network operator more accommodating to customers needs associated with the quality-of-service requirements, which would also keep customers satisfied.

Response to Arguments

10. Applicant's arguments filed on 02/09/2004 with respect to claims 1-4,6-8,10,12-15,17-19,21,23-35 and 37-41 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, with respect to claims 5,9,11,16,20,22,36 and 42, on pages 10 and 13, have been fully considered but they are not persuasive.

On pages 10 and 13, the Applicant argues that that the instantaneous bandwidth calculation in Lee is merely used to determine how much bandwidth is available to carry the ABR service and thus is not used in "determining said quality of service requirements in accordance with instantaneous availability of bandwidth resources", as required by the invention. The Examiner respectfully disagrees. According to the Applicants specification, the quality of service requirement are actually determined by the service plan profile (i.e. *not* the instantaneous availability of bandwidth resources) and the measurement of instantaneous available bandwidth resources is actually used for the adaptation of the voice call for transmission over the network (see page 6 lines 1-12 of the Applicant's specification). Therefore, the Examiner's interpretation of the claim limitation reciting "...determining said quality of service requirements in accordance with instantaneous availability of bandwidth resources..." is that the instantaneous availability of bandwidth resources is used to determine if the quality of service requirements *are met* for the voice call. This is what Lee discloses. Namely, Lee teaches using instantaneous bandwidth availability to determine how much bandwidth is available to carry the ABR service, in order to comply with the quality-of service requirements that must be met when communicating ABR type traffic (see columns 1 and 2). Furthermore, the Applicants assertion

that the instantaneous available bandwidth is used to actually determine what quality of service requirements are to be used is not feasible. Namely, not only does the specification show that the quality of service requirements are actually determined by the service plan profile and not the 'instantaneous availability of bandwidth resources' but the 'instantaneous availability of bandwidth resources' is a measurement taken during a snapshot of time (i.e. instantaneous) and such information itself is not a 'quality of service requirement' nor can quality of service requirements be determined from such information. Rather, quality of service requirements are transmission characteristic necessities that must be determined *before* communications takes place (i.e. *not* during communications) and these necessities must be conformed to in order to implement different service types. In this case the present application and the Lee reference are dealing with the ATM protocol which has already pre-established quality of service requirements associated with particular service types such as Available Bit Rate (ABR) and Constant Bit Rate (CBR). Nodes use 'instantaneous availability of bandwidth resources' in order to determine if the quality of service requirements are going *to be met* in order to provide and guarantee the transmission quality associated with desired service category. Thus the Applicants arguments that the invention determines the quality-of-service requirements based on the instantaneous availability of bandwidth resources are unfounded both from a technical standpoint and in light of the Applicant's specification.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

April 7, 2004

JOHN PEZZLO
PRIMARY EXAMINER